

इंटरनेट

मानक

Disclosure to Promote the Right To Information

Whereas the Parliament of India has set out to provide a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, and whereas the attached publication of the Bureau of Indian Standards is of particular interest to the public, particularly disadvantaged communities and those engaged in the pursuit of education and knowledge, the attached public safety standard is made available to promote the timely dissemination of this information in an accurate manner to the public.

“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 6233 (1971): Forceps, Bone Cutting (stille liston pattern) [MHD 2: Orthopaedic Instruments, Implants and Accessories]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

BLANK PAGE





Indian Standard

SPECIFICATION FOR FORCEPS, BONE CUTTING (STILLE LISTON PATTERN)

1. Scope — Dimensions and requirements of Stille Liston pattern bone cutting forceps.

2. Material

2.1 Working Jaws, Handles and Spring — Stainless steel having the following composition:

	Percent
Carbon	0.35 to 0.45
Silicon	0.6 Max
Manganese	0.6 Max
Chromium	12 to 14
Nickel	0.6 Max
Sulphur	0.03 Max
Phosphorus	0.03 Max

2.2 Screws — Stainless steel conforming to Designation 22Cr13 of Schedule V of IS : 1570-1961 + Schedules for wrought steels for general engineering purposes.

3. Shape and Dimensions — As shown in Fig. 1.

4. Workmanship — The forceps shall be free from rough edges, pits, burrs, cracks and blemishes of any kind. The cutting edges shall be sharp and uniform. The compound action shall be smooth and free from jerks and shall have no side play. The spring action shall be smooth. The screw shall be flush with the body.

5. Heat Treatment — The working jaws shall be hardened and tempered to 500 to 600 HV, the handles and spring shall be hardened and tempered to 380 to 420 HV, and the screws 290 to 320 HV.

6. Finish — The forceps shall be passivated and finished smooth and bright.

7. Tests

7.1 Performance Test — Cut a piece of fresh sheep bone at least 8 mm thick with the forceps. The bone shall be cut easily and evenly. This shall be done 5 times. The cutting edges shall not show any sign of damage or distortion and they shall continue to register properly.

7.2 Load Closure Test — The cutting edges shall meet together when a force of $15 \pm 2N$ (1.5 kgf approx) is applied at the free ends of the handle.

7.3 Flexibility of the Spring — With the handles of the forceps fully opened the distance between the free ends of the arms shall be measured. The forceps shall then be fully closed and released 15 times. After completion of the test, the distance between the two ends shall not alter.

7.4 Corrosion Resistance — Scrub the sample with soap and warm water, rinse in hot water and then dip in 95 percent ethyl alcohol. Dry the sample. Immerse in copper sulphate solution at room temperature for 6 minutes and wash off with fresh water or wet cotton wool. Make up the solution as follows:

Copper sulphate ($CuSO_4 \cdot 5H_2O$)	4.0 g
Sulphuric acid (H_2SO_4) (sp gr 1.84)	10.0 g
Distilled water [see IS : 1070-1960 Specification for water, distilled quality (revised)]	90.0 ml

No red stains or spots on the sample shall be allowed but dulling of the polished surface may be permitted.

Adopted 26 July 1971

© August 1972, ISI

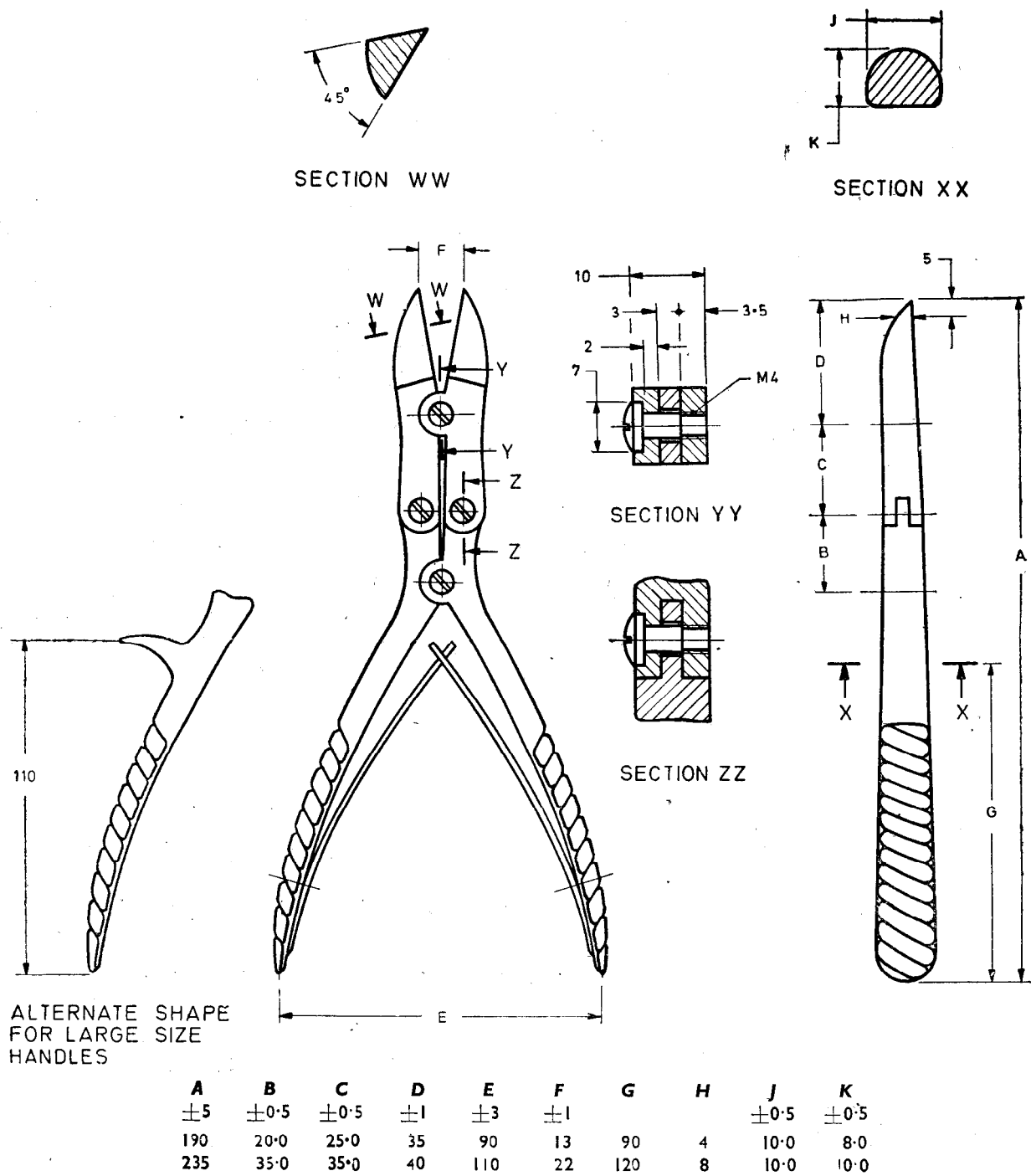
Price 3.00
Revised Price

INDIAN STANDARDS INSTITUTION
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 1

8. **Marking** — Shall be marked with manufacturer's name, initials or recognized trade-mark and the country of origin.

8.1 *ISI Certification Marking* — Details available from the Indian Standards Institution, New Delhi 1.

9. **Packing** — As agreed to between the purchaser and the supplier.



All dimensions in millimetres.

FIG. 1 FORCEPS, BONE CUTTING, STILLE LISTON PATTERN